



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0102; Directorate Identifier 2012-NM-004-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Various Transport Category Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede an existing airworthiness directive (AD) that applies to certain transport category airplanes. The existing AD currently requires either activating all chemical oxygen generators in the lavatories until the generator oxygen supply is expended, or removing the oxygen generator(s); and, for each chemical oxygen generator, after the generator is expended (or removed), removing or restowing the oxygen masks and closing the mask dispenser door. Since we issued that AD, we have identified means to provide a supplemental oxygen system that does not have the unsafe condition. This proposed AD would require installing a supplemental oxygen system in affected lavatories, which would terminate the requirements of the existing AD. We are proposing this AD to eliminate a hazard that could jeopardize flight safety, and to ensure that all lavatories have a supplemental oxygen supply.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Jeff Gardlin, Aerospace Engineer, Airframe and Cabin Safety Branch, ANM-115, FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-227-2136; fax: 425-227-1149; e-mail: [jeff.gardlin@faa.gov](mailto:jeff.gardlin@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0102; Directorate Identifier 2012-NM-004-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

On March 2, 2011, we issued AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011), for certain transport category airplanes. That AD requires either activating all chemical oxygen generators (COGs) in the lavatories until the generator oxygen supply is expended, or removing the oxygen generator(s); and, for each chemical oxygen generator, after the generator is expended (or removed), removing or restowing the oxygen masks and closing the mask dispenser door. That AD resulted from reports that the current design of these oxygen generators presents a hazard that could jeopardize flight safety. We issued that AD to eliminate this hazard.

### **Actions Since Existing AD Was Issued**

When we issued AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011), we also issued Special Federal Aviation Regulation (SFAR) 111 (76 FR 12550, March 8, 2011) to address the fact that, with inoperative COGs, affected airplanes would not be in compliance with certain airworthiness standards that require supplemental oxygen to be available in all lavatories. That SFAR permitted airplanes affected by AD 2011-04-09 to be delivered, modified, and returned to service even though they were not in compliance with the affected regulations.

The FAA considered SFAR 111 (76 FR 12550, March 8, 2011) and AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011), to be interim measures until they could be superseded by additional rulemaking activity. The FAA analyzed the risk of removing supplemental oxygen from lavatories for the time required to develop a system that addresses the risk identified by the underlying AD, and

concluded that the risk was low. However, this assessment was based on a finite exposure time; we never intended to allow airplanes to fly indefinitely without a supplemental oxygen supply in the lavatories. The preamble to AD 2011-04-09 explained that that AD would be in effect until superseded by further rulemaking, and SFAR 111 discussed a 2- to 4-year period to restore oxygen to lavatories, once the identified vulnerability was adequately addressed by the new rulemaking.

To address the vulnerability, the FAA chartered an Aviation Rulemaking Committee (ARC) to recommend new standards for COG installations that would eliminate the identified vulnerability, and permit acceptable installation of COGs in lavatories. The ARC completed its work, and we now have sufficient information to approve new COG installations. FAA Policy Statement PS-ANM-25-04, issued December 21, 2011

([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgPolicy.nsf/0/06EE1CEFE9804A2F8625796E005C017F?OpenDocument&Highlight=ps-anm-25-04](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgPolicy.nsf/0/06EE1CEFE9804A2F8625796E005C017F?OpenDocument&Highlight=ps-anm-25-04)), summarizes the ARC recommendations and provides guidance to applicants that want to begin restoring oxygen to lavatories in advance of rulemaking. This policy will be used in making approvals of COG installations that will be used to comply with this proposed AD. The FAA may also propose new airworthiness standards for the safe installations of COGs using the ARC recommendations.

As stated in the preamble to AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011), our original intention was to adopt new type certification and operational rules for installing lavatory oxygen systems. In reviewing the ARC's recommendations, however, we recognized the need to terminate the requirements of that AD to adequately address the identified unsafe condition. This is consistent with our normal AD process in which we typically issue superseding ADs mandating modifications that terminate interim actions imposed by earlier superseded ADs. This

proposed AD would serve as superseding action to AD 2011-04-09 and provide terminating action to the unsafe condition identified by that AD. The lack of oxygen in lavatories, as noted above, is noncompliant with airworthiness and operational standards. This proposal requires a terminating action that addresses the identified unsafe condition in a manner that maintains compliance with the existing standards.

Design approval holders have not released service information at this time. However, we anticipate that relevant service information for the terminating action will be available in time for operators to comply with this proposed AD. Depending on the technical approach taken, we propose to use different approval processes as discussed below.

#### **Approval Process for Compliance with Proposed AD, Using Chemical Oxygen Generators**

Because of the issues addressed by AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011), COG installations will require new considerations in order to be found acceptable methods of compliance with this proposed AD. The approval for COG installations will therefore be in a manner approved by the FAA as discussed below.

#### **Approval Process for Compliance with Proposed AD, Using Other Systems**

Chemical oxygen generators are one type of system used to provide supplemental oxygen. While the majority of transport category airplanes use this system in lavatories, there are other systems as well. If another system type is used to meet this AD, the original unsafe condition is not a concern. In that case, the means of compliance is straightforward, and we have determined that the approval method could be more flexible than is usually the case for an AD. For example, delegated organizations cannot normally make compliance findings for ADs; service information associated with ADs must be adhered to exactly, or else an alternative method of compliance (AMOC) must be granted. For this proposed AD, if the type of system is other than a COG, then we

have determined that these restrictions could be relaxed. Therefore, paragraph (k)(2) of this proposed AD contains provisions to permit existing approval processes to be used, as long as the means of compliance is other than a COG. This provision takes precedence over current limitations in operators' authority to use their organizational delegations when showing compliance with an AD. In addition, if an operator uses service information that is approved for such installations, deviations from the service information can be addressed using the operator's normal procedures without requiring an AMOC.

### **Oversight Office**

Paragraph (k) of this proposed AD refers to the FAA oversight office responsible for approval of modifications used to show compliance. This will typically be the aircraft certification office having geographic oversight of the applicant. In the case of service instructions from foreign design approval holders, this would be the Transport Standards Staff. We anticipate that modifications to meet this proposal will require either supplemental type certification or amended type certificate approval.

### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would retain the requirements of AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011). This proposed AD would also require installing a supplemental oxygen system in affected lavatories, which would terminate the existing requirements.

## Costs of Compliance

We estimate that this proposed AD affects 5,500 airplanes of U.S. registry. We estimate the following costs to comply with the actions specified in this proposed AD.

### Estimated costs

| Action   | Labor cost                                       | Parts cost | Cost per product | Cost on U.S. operators |
|--|--|------------|------------------|------------------------|
| Activate COG/expend oxygen supply [actions retained from AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011)] | Up to 2 work-hours X \$85 per hour = Up to \$170 | \$0        | Up to \$170      | Up to \$935,000        |
| Oxygen system installation (new proposed action)   | 24 work-hours X \$85 per hour = \$2,040          | \$6,000    | \$8,040          | \$44,220,000           |

## Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a

substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011), and adding the following new AD:

**Transport Category Airplanes:** Docket No. FAA-2012-0102; Directorate Identifier 2012-NM-004-AD.



**(a) Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD supersedes AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011).

**(c) Applicability**

This AD applies to transport category airplanes, in passenger-carrying operations, as specified in paragraph (c)(1) or (c)(2) of this AD.

(1) Airplanes that are in compliance with the requirements of AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011).

(2) Airplanes equipped with any chemical oxygen generator installed in any lavatory and are:

(i) Operating under 14 CFR part 121; or

(ii) U.S.-registered and operating under 14 CFR part 129, with a maximum passenger capacity of 20 or greater.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 35, Oxygen.

**(e) Unsafe Condition**

This AD was prompted by the determination that the current design of chemical oxygen generators presents a hazard that could jeopardize flight safety. We are issuing this AD to eliminate this hazard and ensure that all lavatories have a supplemental oxygen supply.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Restatement of Requirements of AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011): Oxygen Generator Deactivation**

Within 21 days after March 14, 2011 (the effective date of AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011)), do the actions specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) Activate all chemical oxygen generators in the lavatories until the generator oxygen supply is expended. An operator may also remove the oxygen generator(s), in accordance with existing maintenance practice, in lieu of activating it.

(2) For each chemical oxygen generator, after the generator is expended (or removed), remove or re-stow the oxygen masks and close the mask dispenser door.

Note 1 to paragraph (g) of this AD: Chemical oxygen generators are considered a hazardous material and subject to specific requirements under Title 49 CFR for shipping. Oxygen generators must be expended prior to disposal but are considered a hazardous waste; therefore, disposal must be in accordance with all Federal, State, and local regulations. Expended oxygen generators are forbidden in air transportation as cargo. For more information, contact 1-800-HMR-4922.

Note 2 to paragraph (g) of this AD: Design approval holders are not expected to release service instructions for the action specified in paragraph (g) of this AD.

**(h) Restatement of Requirements of AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011): Compliance with Federal Aviation Regulations**

Notwithstanding the requirements of Sections 25.1447, 121.329, 121.333, and 129.13 of the Federal Aviation Regulations (14 CFR 25.1447, 121.329, 121.333, and 129.13), operators complying with this AD are authorized to operate affected airplanes until accomplishment of the actions specified in paragraph (k) of this AD.

**(i) Restatement of Requirements of AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011): Parts Installation**

After March 14, 2011, and until accomplishment of the actions specified in paragraph (k) of this AD, no person may install a chemical oxygen generator in any lavatory on any affected airplane.

**(j) Restatement of Requirements of AD 2011-04-09, Amendment 39-16630 (76 FR 12556, March 8, 2011): Special Flight Permit**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed for the accomplishment of the actions specified in paragraph (g) of this AD.

**(k) New Requirements of This AD: Oxygen System Restoration**

Within 24 months after the effective date of this AD, install a supplemental oxygen system that meets the requirements of Sections 25.1447, 121.329, 121.333, and 129.13 of the Federal Aviation Regulations (14 CFR 25.1447, 121.329, 121.333, and 129.13) in each lavatory, as specified in paragraph (k)(1) or (k)(2) of this AD, as applicable.

(1) If compliance with paragraph (k) of this AD is achieved using a chemical oxygen generator, the actions specified in paragraph (k) of this AD must be done in accordance with a method approved by the Manager of the responsible FAA oversight office having responsibility over the modification. For a method to be approved, it must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(2) If compliance with paragraph (k) of this AD is achieved without a chemical oxygen generator, the specifications of paragraphs (k)(2)(i) and (k)(2)(ii) of this AD apply.

(i) The modification must receive FAA approval in accordance with 14 CFR part 21 as a major design change. Notwithstanding operations specification restrictions

to the contrary, organizational approval holders may exercise their full authority in approving installations that meet the installation requirements of this AD.

(ii) Deviation from approved service instructions and subsequent modifications may be handled by normal operator procedures without requiring approval of an alternative method of compliance.

**(l) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Transport Standards Staff, ANM-110, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the Transport Standards Staff, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(m) Related Information**

For more information about this AD, contact Jeff Gardlin, Aerospace Engineer, Airframe and Cabin Safety Branch, ANM-115, FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-227-2136; fax: 425-227-1149; e-mail: [jeff.gardlin@faa.gov](mailto:jeff.gardlin@faa.gov).

Issued in Renton, Washington, on January 27, 2012.

Ali Bahrami, Manager,

Transport Airplane Directorate,  
Aircraft Certification Service.

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